

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A wound dressing for accelerating epidermal regeneration which comprises:

[[a]] at least one polypeptide (P) having at least one species of epidermal regeneration-accelerating minimal amino acid sequences (X) selected from the group consisting of Arg-Gly-Asp (SEQ ID NO: 1), Ile-Lys-Val-Ala-Val (SEQ ID NO: 2), and Tyr-Ile-Gly-Ser-Arg (SEQ ID NO: 3), and at least one [[an]] auxiliary amino acid sequence (Y),

a polyalkylenepolyamine and/or polyarylenepolyamine (A) having a weight average molecular weight of 2,000 to 60,000, and

a sheet (S) being polyurethane,

wherein the polypeptide (P) and the sheet (S) are bonded by a covalent bonding, and

wherein said auxiliary amino acid sequence (Y) is selected from the group consisting of:

(Gly Ala)_a ((residues 1-2 of SEQ ID NO: 4)_a),

(Gly Ala Gly Ala Gly Ser)_b ((residues 1-6 of SEQ ID NO: 7)_b),

(Gly Ala Gly Ala Gly Tyr)_c ((residues 1-6 of SEQ ID NO: 10)_c),

(Gly Ala Gly Val Gly Tyr)_d ((residues 1-6 of SEQ ID NO: 13)_d),

(Gly Ala Gly Tyr Gly Val)_e ((residues 1-6 of SEQ ID NO: 16)_e),

{Asp Gly Gly (Ala)_f Gly Gly Ala}_g ((residues 1-12 of SEQ ID NO: 19)_g),

(Gly Val Pro Gly Val)_h ((residues 1-5 of SEQ ID NO: 22)_h),

(Gly)_i, ((residue 1 of SEQ ID NO: 25)_i),

(Ala)_j, ((residue 1 of SEQ ID NO: 28)_j),

(Gly Gly Ala)_k, ((residues 1-3 of SEQ ID NO: 31)_k),

(Gly Val Gly Val Pro)_m, ((residues 1-5 of SEQ ID NO: 34)_m),

(Gly Pro Pro)_n, ((residues 1-3 of SEQ ID NO: 37)_n),

(Gly Ala Gln Gly Pro Ala Gly Pro Gly)_o, ((residues 1-9 of SEQ ID NO: 40)_o),

(Gly Ala Pro Gly Ala Pro Gly Ser Gln Gly Ala Pro Gly Leu Gln)_p, ((residues 1-15 of SEQ ID NO: 43)_p), and

(Gly Ala Pro Gly Thr Pro Gly Pro Gln Gly Leu Pro Gly Ser Pro)_q, ((residues 1-15 of SEQ ID NO: 46)_q),

wherein a is an integer from 5 to 100; b, c, d, and e each are an integer from 2 to 33; f is an integer from 1 to 194; g is an integer from 1 to {200/(6 + f)} with any fraction omitted; h is an integer from 2 to 40; i and j each are an integer from 10 to 200; k is an integer from 3 to 66; m is an integer from 2 to 40; n is an integer from 3 to 66; o is an integer from 1 to 22; and p and q each are an integer from 1 to 13.

2. (Currently Amended) The wound dressing according to Claim 1, wherein said epidermal regeneration-accelerating minimal amino acid sequence (X) is repeated ~~in the number of~~ 3 to 50 times in each molecule of the polypeptide (P).

3. (Currently Amended) The wound dressing according to Claim 1 or 2, wherein said auxiliary amino acid sequence (Y) is repeated ~~in the number of~~ 2 to 51 times in each molecule of the

polypeptide (P).

4. (Original). The wound dressing according to Claim 1,

wherein the polypeptide (P) has a structure such that the epidermal regeneration-accelerating minimal amino acid sequence (X) and the auxiliary amino acid sequence (Y) are chemically bonded to each other in an alternating fashion.

5. (Previously Presented) The wound dressing according to Claim 1

wherein the epidermal regeneration-accelerating minimal amino acid sequence (X) is Arg-Gly-Asp (SEQ ID NO: 1).

6. (Previously Presented) The wound dressing according to Claim 1

wherein the auxiliary amino acid sequence (Y) is (Gly-Ala-Gly-Ala-Gly-Ser)_b ((residues 1-6 of SEQ ID NO: 7)_b) where b is an integer from 2 to 33.

7. (Original) The wound dressing according to Claim 1

wherein the polyalkylenepolyamine and/or polyarylenepolyamine (A) is a polyethyleneimine.

8. (Withdrawn) A method for epidermal regeneration treatment which comprises using the wound dressing according to Claim 1.

9-10. (Cancelled)

11. (New) The wound dressing according to claim 1, wherein said auxiliary amino acid sequence (Y) is selected from the group consisting of:

(Gly Ala)_a ((residues 1-2 of SEQ ID NO: 4)_a),
(Gly Ala Gly Ala Gly Ser)_b ((residues 1-6 of SEQ ID NO: 7)_b),
(Gly Ala Gly Ala Gly Tyr)_c ((residues 1-6 of SEQ ID NO: 10)_c),
(Gly Ala Gly Val Gly Tyr)_d ((residues 1-6 of SEQ ID NO: 13)_d),
(Gly Ala Gly Tyr Gly Val)_e ((residues 1-6 of SEQ ID NO: 16)_e),
{Asp Gly Gly (Ala)_f Gly Gly Ala}_g ((residues 1-12 of SEQ ID NO: 19)_g),
(Gly Val Pro Gly Val)_h ((residues 1-5 of SEQ ID NO: 22)_h),
(Gly Val Gly Val Pro)_m ((residues 1-5 of SEQ ID NO: 34)_m), and
(Gly Pro Pro)_n ((residues 1-3 of SEQ ID NO: 37)_n),

wherein a is an integer from 5 to 100; b, c, d, and e each are an integer from 2 to 33; f is an integer from 1 to 194; g is an integer from 1 to $\{200/(6 + f)\}$ with any fraction omitted; h is an integer from 2 to 40; m is an integer from 2 to 40; and n is an integer from 3 to 66.

12. (New) The wound dressing according to claim 1, wherein said auxiliary amino acid sequence (Y) is selected from the group consisting of:

(Gly Ala Gly Ala Gly Ser)_b ((residues 1-6 of SEQ ID NO: 7)_b),

$(\text{Gly Val Pro Gly Val})_h ((\text{residues 1-5 of SEQ ID NO: 22})_h),$

$(\text{Gly Val Gly Val Pro})_m ((\text{residues 1-5 of SEQ ID NO: 34})_m),$ and

$(\text{Gly Pro Pro})_n ((\text{residues 1-3 of SEQ ID NO: 37})_n),$

wherein b is an integer from 2 to 33; h is an integer from 2 to 40; m is an integer from 2 to 40; and n is an integer from 3 to 66.

13. (New) The wound dressing according to claim 1, wherein the at least one polypeptide (P) selected from the group consisting of ProNectin F, ProNectin F2, ProNectin F3, ProNectin L, ProNectin L2, ProNectin L3, ProNectin Y, ProNectin Y2 and ProNectin Y3.

14. (New) The wound dressing according to claim 13, wherein the at least one polypeptide (P) is selected from the group consisting of ProNectin F and ProNectin L.